

more yet to be found. This should not only be tapped, shipping most of the gas out of the province, but made the basis for a petrochemical and fertilizer industry supplying vastly expanded agricultural activity in the pampas and elsewhere. There is also the basis for a strong forestry industry in 2 million hectares of good forest land stretching to the southern tip of the country. Transportation will be required to foster lumber, wood products, and pulp industries.

The key is "nuplexes," nuclear-centered agro-industrial complexes, utilizing both energy and process heat from, initially, high-temperature gas-cooled reactors. *EIR* has proposed location of such nuplex facilities in the pampa humeda, at least six (three more plants than now scheduled): Resistencia-Corrientes, a twin-plant complex; Jujuy-Salta, one plant; Tucuman, one plant; Mendoza, a twin-plant nuplex; San Antonio Oeste, one plant; and Tierra del Fuego, two plants in Ushuaia.

Argentina can advance world science research

Argentina, with its relatively large nuclear industry and highly skilled workforce, is uniquely positioned to become a world leader in scientific research. Argentina should become capable of independent development of new technologies, and independent discovery of new scientific knowledge.

To accomplish this requires:

1) Creation of a handful of world-class scientific institutes, functioning as research institutes responsible for new basic research as well as technological applications, and education of scientists to function as teachers, consultants, and field researchers for industry and agriculture.

2) Upgrading of higher scientific education at all universities, and establishment of a National Polytechnic Institute with branches in all major population centers.

3) Encouragement of new technologies in industry and agriculture, with the example of the U.S. Agricultural Extension Services foremost in mind.

There are four areas in which Argentina could make a major scientific contribution:

Advanced nuclear technologies: Argentina should expand its nuclear commitment to embrace the high-temperature gas-cooled reactor, or HTGR, with its higher fuel and thermal efficiencies and benign safety and environmental properties, which make it ideal for "nuplex" facilities. The country should also expand its nuclear materials research.

Laser and plasma technologies: Argentina must engage in this research now, so that by 1990, when such technologies *must* be introduced, the country will have the knowledge, manpower, and resources to invest in them. Laser isotope separation; magnetohydrodynamics (MHD) using natural gas, fusion, and laser; and plasma metalworking are areas for which a basic research institute should be established.

Agriculture and hydrology research: Argentina sits astride one of the world's great river basins, the Río de la Plata. The study of tropical hydrology, irrigation in middle latitudes,

and livestock science (accelerated twinning, etc.) are areas in which the country is especially well positioned.

Meteorology and oceanography: The dynamics of global climate indicate that the interaction between large masses of water like the South Atlantic and neighboring rain-forests are the most intense energy sources for driving long-term change in the world's climate. Argentina's unique geographical position in the Southern Hemisphere enables it to study new theories of global climate formation, in which the absence of long-term, accurate data for the Southern Hemisphere is the greatest obstacle. Argentina's long Atlantic coastline, exposure in the far south, and its South Atlantic and Antarctic territories, mean that no one is positioned better for this. A major world research center in the Tierra del Fuego region would be the center for observation and research stations gathering the large mass of water and atmospheric data necessary for climate study. The project would be enhanced by collaboration with Brazil, and the combination of the Argentine and Brazilian rocketry and space capabilities, making it a complete data gathering and reduction project.

Scientific advance is the essence of national security, and a high priority should therefore be placed on the involvement of the Argentine Armed Forces in these scientific projects. This provides the proper basis for the integration of the civilian and military aspects of Argentine society, in a way in which each is contributing maximally to the nation's development.

